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10/809,132	03/25/2004	Walter M. Marcinkiewicz	2002-048	7698

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COATS & BENNETT/SONY ERICSSON
1400 CRESCENT GREEN
SUITE 300
CARY, NC 27511

EXAMINER	
ZUBAJLO, JENNIFER L	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/809,132	MARCINKIEWICZ ET AL.	
	Examiner	Art Unit	
	JENNIFER ZUBAJLO	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 February 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,5,7-16,19-24 and 26-49* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,5,7-16,19-24 and 26-49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 2, 4, 5, 9, 14, 19, 21, 23, 24, 26, 41-45, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michael E. Miller (Pub. No.: US 2002/0024529 A1) in view of Nils Rydbeck (Patent No.: US 6233467 B1).

As to claims 1 and 24, Miller teaches: A system and method of improving visibility of information on a display of a portable electronic device comprising: measuring ambient light with light detection electronics located on the portable electronic device (see Abstract and figure 4); averaging the measured ambient light over a predefined time to determine an average measured ambient light (see figures 5 & 6); and adjusting the display by use of a display controller on the portable electronic device based on the average measured ambient light (see figures 5 & 6).

Miller doesn't directly teach adjusting a size of information displayed on the display based on the average measured ambient light by increasing/ decreasing the size of the displayed information as the average measured ambient light increases/decreases.

Rydbeck teaches adjusting a size of information displayed on the display by increasing/ decreasing the size of the displayed information as the average measured ambient light increases/ decreases. (see column 1: lines 32-34, lines 48-50, lines 54-57, and figures 3A and 3B).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the adjustment of the size of the displayed information based on ambient lighting conditions (poorly-lit environments) taught by Rydbeck into a system and method of improving visibility of information on a display of a portable electronic device taught by Miller. It would have been obvious make this combination in order to provide a clearly readable display even in poorly-lit environments.

As to claims 2 and 42, the combination of Miller and Rydbeck teach the method and system taught by claims 1 and 24 respectively (see above rejection). Also, Miller teaches measuring the ambient light with light detection electronics comprises detecting the ambient light with a light sensor, and wherein averaging the measured ambient light comprises averaging the detected ambient light over the predefined time to determine the average measured ambient light (see figures 5 & 6).

As to claims 4 and 44, the combination of Miller and Rydbeck teach the method and system taught by claims 2 and 24 respectively (see above rejection). Also, Miller

teaches the light detection electronics (light sensor) as part of a camera assembly (see [0024] and figure 4).

As to claims 5 and 26, the combination of Miller and Rydbeck teach the method and system taught by claims 1 and 24 respectively (see above rejection). Miller also teaches adjusting at least one of a backlight intensity of the display, and a display contrast based on the average measured ambient light (see [0013], [0014], [0028], [0031], and [0032]).

As to claim 9, the combination of Miller and Rydbeck teach the method taught by claim 5 (see above rejection). Rydbeck teaches adjusting the display contrast comprising adjusting at least one of a font type, font color, and a background color (see column 3 lines 16-30 and figures 3A and 3B).

As to claim 14, the combination of Miller and Rydbeck teach the method taught by claim 5 (see above rejection). Miller also teaches adjusting at least two of a size of the displayed information, the backlight intensity of the display, and the display contrast based on the average measured ambient light (see [0013], [0014], [0024], [0028], [0031], and [0032]).

As to claims 19 and 41, the combination of Miller and Rydbeck teach the method and system taught by claims 1 and 24 respectively (see above rejection). Miller also

teaches wherein adjusting the size of the displayed information based on the average measured ambient light comprises automatically adjusting the size of the displayed information based on the average measured ambient light (see [0013] and [0014]). Miller doesn't directly teach the size being adjusted but Rydbeck teaches the size adjustment (as described in claims 1 and 24 above) and therefore when incorporated into the display adjustment taught by Miller, the combination reads on the claims.

As to claim 21, the combination of Miller and Rydbeck teach the method taught by claim 1 (see above rejection). Miller also teaches adjusting at least one of a gamma setting, a white point setting, and a black point setting of the display on the portable electronic device based on the average measured ambient light (see [0003]). This is not taught directly, however adjusting the gamma, white point, or black point settings is for the purpose of enhancing the visibility of color and this is what is described in [0003].

As to claims 23 and 48, the combination of Miller and Rydbeck teach the method and system taught by claims 1 and 24 respectively (see above rejection). Miller also teaches wherein the display on the portable electronic device comprises one of a liquid crystal display, a thin film transistor display, a thin film diode display, an organic light emitting diode, and a super twisted nematic display (see [0028]). In this case, a liquid crystal display is used.

As to claim 43, the combination of Miller and Rydbeck teach the system taught by claim 42 (see above rejection). Miller also teaches wherein the light detection electronics further comprises a light processor for processing the detected ambient light and determining the average measured ambient light from the processed ambient light (see [0013], [0014], [0015], [0024], [0028], and [0032]).

As to claim 45, the combination of Miller and Rydbeck teach the system taught by claim 24 (see above rejection). The Examiner is taking an **official notice**. It is well known for a portable electronic device to be one of a laptop computer, PDA, calculator, etc.

3. Claims 7, 8, 15, 16, 20, 27, 35, 36, 38, 40, 46, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michael E. Miller (Pub. No.: US 2002/0024529 A1) in view of Nils Rydbeck (Patent No.: US 6233467 B1), further in view of Yong et al. (Pub. No.: US 2004/0012556 A1).

As to claims 7 and 27, the combination of Miller and Rydbeck teach the method and system taught by claims 5 and 27 respectively (see above rejection).

The combination of Miller and Rydbeck do not teach wherein adjusting the backlight intensity of the display based on the average measured ambient light comprises adjusting a pulse width modulation duty cycle of the display based on the average measured ambient light.

Yong teaches wherein adjusting the backlight intensity of the display based on the average measured ambient light comprises adjusting a pulse width modulation duty cycle of the display based on the average measured ambient light (see [0022] and [0024]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Yong into a system and method of improving visibility of information on a display of a portable electronic device taught by the combination Miller and Rydbeck in order to create a more user friendly device.

As to claim 8, the combination of Miller and Rydbeck teach the method taught by claim 5 (see above rejection).

The combination of Miller and Rydbeck do not teach adjusting the backlight intensity of the display based on the average measured ambient light comprising of increasing/decreasing the backlight intensity as the average measured ambient light decreases/increases.

Yong teaches adjusting the backlight intensity of the display based on the average measured ambient light comprising of increasing/decreasing the backlight intensity as the average measured ambient light decreases/increases (see [0005], [0009], [0018], [0022], [0028], and [0032]).

As to claims 15 and 35, the combination of Miller and Rydbeck teach the method and system taught by claims 1 and 24 respectively (see above rejection).

The combination of Miller and Rydbeck do not teach generating a table (graph) of display adjustment values and storing these values, wherein each display adjustment value corresponds a size of the displayed information to a different ambient light value.

Yong teaches generating a table (graph) of display adjustment values and storing these values, wherein each display adjustment value corresponds a size of the displayed information to a different ambient light value (see [0010], [0021], [0023], [0024], and figure 3).

As to claims 16 and 36, the combination of Miller, Rydbeck, and Yong teach the method and system taught by claims 15 and 35 respectively (see above rejection). Yong also teaches wherein adjusting the size of the displayed information based on the average measured ambient light comprises selecting the display adjustment value from the table of display adjustment values that corresponds to the measured ambient light, and adjusting the size of the displayed information based on the selected display adjustment value (see [0009], [0010], [0021], [0022], [0023], [0024], and figure 3).

As to claim 20, the combination of Miller and Rydbeck teach the method taught by claim 1 (see above rejection).

The combination of Miller and Rydbeck do not teach wherein adjusting the size of the displayed information based on the average measured ambient light comprises receiving a user input and adjusting the size of the displayed information based on the average measured ambient light in response to the user input.

Yong teaches wherein adjusting the size of the displayed information based on the average measured ambient light comprises receiving a user input and adjusting the size of the displayed information based on the average measured ambient light in response to the user input (see [0005], [0009], [0010], [0018], [0022], and [0028]).

As to claim 38, the combination of Miller and Rydbeck teach the system taught by claim 24 (see above rejection).

The combination of Miller and Rydbeck do not teach a user input device for directing the display controller to adjust the size of the displayed information based on the measured ambient light.

Yong teaches a user input device for directing the display controller to adjust the size of the displayed information based on the measured ambient light (see [0009], [0010], [0018], [0022], [0028], and [0032]).

As to claim 40, the combination of Miller, Rydbeck, and Yong teach the system taught by claim 38 (see above rejection). Rydbeck also teaches a speaker for receiving an audible display command from the user (see column 2 lines 20-59).

As to claim 46, the combination of Miller and Rydbeck teach the system taught by claim 24 (see above rejection).

The combination of Miller and Rydbeck do not teach a portable electronic device comprising a cellular telephone comprising a transceiver for transmitting and receiving wireless communication signals.

Yong teaches a portable electronic device comprising a cellular telephone comprising a transceiver for transmitting and receiving wireless communication signals (see [0004], [0005], [0015], [0017], [0021], [0026], [0030], and [0032]).

As to claim 47, the combination of Miller and Rydbeck teach the system taught by claim 46 (see above rejection).

The combination of Miller and Rydbeck do not teach the light detection electronics (light sensor) are disposed in a camera assembly within the cellular telephone.

Yong teaches light detection electronics (light sensor) within a cellular telephone (see [0004], [0005], [0015], [0017], [0021], [0026], [0030], and [0032]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine light detection electronics (light sensor) as part of a camera assembly taught by the combination of Miller and Rydbeck with light detection electronics (light sensor) within a cellular telephone taught by Yong. This would have been obvious because combining a camera with a cellular phone was common in the art at the time of the invention for the purpose of convenience.

4. Claims 10-13 and 28-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michael E. Miller (Pub. No.: US 2002/0024529 A1) in view of Nils Rydbeck (Patent No.: US 6233467 B1), further in view of Naoki Kuwata (EP 1 158 484 A2), hereinafter Kuwata.

As to claims 10-13, the combination of Miller and Rydbeck teach the method taught by claim 5 (see above rejection).

The combination of Miller and Rydbeck do not teach determining a display temperature by directly measuring the temperature or measuring an ambient temperature and determining the display temperature; and adjusting the bias voltage of the display on the portable electronic device.

Kuwata teaches adjusting the display contrast comprising: determining a display temperature by directly measuring the temperature or measuring an ambient temperature and determining the display temperature based on the measured ambient temperature; and adjusting the bias voltage of the display on the portable electronic device (see [0096] – [0101]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate adjusting the display contrast by determining a display temperature by directly measuring the temperature or measuring an ambient temperature and determining the display temperature based on the measured ambient temperature and adjusting the bias voltage of the display on the portable electronic device taught by Kuwata into a system and method of improving visibility of information

on a display of a portable electronic device taught by the combination of Miller and Rydbeck. It would have been obvious make this combination in order to improve picture quality of the display device.

As to claim 28 and 29, the combination of Miller and Rydbeck teach the system taught by claim 24 (see above rejection).

The combination of Miller and Rydbeck do not teach a contrast controller for adjusting a display contrast.

Kuwata teaches display controller comprising a contrast controller for adjusting a display contrast (see [0096]-[0101]).

Kuwata doesn't teach a contrast controller adjusting at least one of a font type, a font color, and a background color.

Rydbeck teaches a contrast controller adjusting at least one of a font type, a font color, and a background color (see column 1 lines 32-34, lines 48-50, lines 54-57, column 3 lines 16-30, and figures 3A and 3B).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a contrast controller adjusting at least one of a font type, a font color, and a background color taught by Rydbeck into a contrast controller for adjusting a display contrast taught by Kuwata into a system and method of improving visibility of information on a display of a portable electronic device taught by the combination of Miller and Rydbeck in order to improve picture quality of the display device.

As to claims 30-34, the combination of Miller, Rydbeck, and Kuwata teach the system taught by claim 28 (see above rejection). Kuwata also teaches adjusting the display contrast based by determining a display temperature by directly measuring the temperature or measuring an ambient temperature and determining the display temperature based on the measured ambient temperature; and adjusting the bias voltage of the display on the portable electronic device (see [0096] – [0101]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate adjusting the display contrast by determining a display temperature by directly measuring the temperature or measuring an ambient temperature and determining the display temperature based on the measured ambient temperature and adjusting the bias voltage of the display on the portable electronic device taught by Kuwata into a system and method of improving visibility of information on a display of a portable electronic device taught by the combination of Miller and Rydbeck. It would have been obvious make this combination in order to improve picture quality of the display device.

5. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Michael E. Miller (Pub. No.: US 2002/0024529 A1) in view of Nils Rydbeck (Patent No.: US 6233467 B1), further in view of Yong et al. (Pub. No.: US 2004/0012556 A1), and even further in view of John Anderton (GB 2 391 995).

As to claim 39, the combination of Miller, Rydbeck, and Yong teach the system taught by claim 38.

The combination of Miller, Rydbeck, and Yong do not teach the user input device comprising of a control button disposed on a housing of the portable electronic device.

Anderton teaches the user input device comprising of a control button disposed on a housing of the portable electronic device (see page 7 lines 3-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the user input device comprising of a control button disposed on a housing of the portable electronic device taught by Anderton into a system and method of improving visibility of information on a display of a portable electronic device taught by the combination of Miller, Rydbeck, and Yong. It would have been obvious make this combination in order to allow for a user friendly device.

6. Claims 22 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michael E. Miller (Pub. No.: US 2002/0024529 A1) in view of Nils Rydbeck (Patent No.: US 6233467 B1), further in view of Applicant's Admitted Art.

As to claims 22 and 49, the combination of Miller and Rydbeck teach the method and system taught by claims 1 and 24 respectively (see above rejection). Miller also teaches conversion of display adjustment parameters generated based on the average measured ambient light (see [0025] and figures 5 & 6).

The combination of Miller and Rydbeck do not teach adjusting a second display on the portable electronic device by using a conversion standard to convert display adjustment parameters generated based on the average measured ambient light for a first display on the portable electronic device to display adjustment parameters for the second display on the portable electronic device.

Applicant's Admitted Art states that it is well known for electronic imaging to adjust parameters of multiple displays (see Applicant's [0052]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate converting display parameters derived for one display to display parameters for another display taught by Applicant's Admitted Prior Art into a system and method of improving visibility of information on a display of a portable electronic device taught by the combination of Miller and Rydbeck. It would have been obvious make this combination because it is well known for electronic imaging to adjust parameters of multiple displays.

Note: References cited include just some examples that Examiner feels best explain the prior art rejection. However, the entire references teach the scope of the claims in more detail. Examiner recommends that Applicant read the full disclosure.

Response to Arguments

7. Applicant's arguments with respect to claims 1 and 24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER ZUBAJLO whose telephone number is (571)270-1551. The examiner can normally be reached on Monday-Friday, 8 am - 5 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on (571) 272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JZ
3/11/08

/Amare Mengistu/
Supervisory Patent Examiner, Art Unit 2629